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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/698,394	11/03/2003	Tessei Shimizu	M1909.1124	2718

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EXAMINER	
NGUYEN, THU V	

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APPLICATION NO./ CONTROL NO.	FILING DATE	FIRST NAMED INVENTOR / PATENT IN REEXAMINATION	ATTORNEY DOCKET NO.
10698394	11/3/2003	SHIMIZU, TESSEI	M1909.1124

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Commissioner for Patents

The examiner's answer sent March 21, 2007 does not include the signature of the examiner who prepares the examiner's answer. Enclosed herein a supplemental examiner's answer with the exminer's signature. Also, enclosed herein the 1449 submitted on April 26, 2004 which is a duplicate IDS submitted on May 6, 2005.

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GROUP 3600

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/698,394
Filing Date: November 03, 2003
Appellant(s): SHIMIZU, TESSEI

Joseph W. Ragusa
For Appellant

EXAMINER'S ANSWER

This is in response to the supplemental appeal brief filed December 1, 2006 appealing from the Office action mailed July 28, 2005.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct except that the reference of Satoshi et al is a Japanese publication JP 2002-089349 (not the US publication as indicated).

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

6,714,857	Kapolka et al	3-2004
6,636,790	Lightner et al	10-2003

Riu et al, JP 2002-197155 12-2002

Satoshi et al, JP 2002-089349

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-2, 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kapolka et al (US 6,714,857) in view of Riu et al (JP 2002-197155) (enclosed IDS) and Lightner et al (US 6,636,790).

As per claim 1, Kapolka teaches a driving diagnostic system comprising: a vehicle 105 (fig.1), a center 120 (fig.1), a user terminal 125 (fig.1), a network 125 (fig.1) and a radio communication network 115 (fig.1). The vehicle includes a sensor (a compass) (col.9,lines 43-47), and an in-vehicle device 218 (fig.2) in which the in-vehicle device acquires information about the fuel consumption, speed, vehicle position and time (col.4,lines 59-67) and temporarily processes the acquired data fro subsequent use (col.6, lines 39-46); the radio communication

terminal transmits the information to the center via radio communication network and receives information from the center (col.5, lines 40-43); the center includes a communication control device for transmitting and receiving the information to and from the radio communication terminal in the vehicle (col.6, lines 47-49; col.4, lines 38-40), a management server for managing the information transmitted from the vehicle, calculating fuel consumption with respect to each event (idling, etc) (col.6, lines 49-63; col.7, lines 34-58) for a total driving time, storing the calculated information (col.7, line 55); providing the content for advices to the user's terminal via a web server (col.7, lines 55-58; col.4, lines 45-50); the user's terminal is a personal computer 125 (fig.1) for displaying the contents information (col.4, lines 52-58). Kapolka does not explicitly disclose that the in-vehicle device provides data concerning engine revolutions, vehicle speeds; the management server provides environment-load emissions, stores the calculated information in the database with user information, retrieves and process the information for diagnosis by combining and comparing the information, provides the contents from the mail server to the user terminal; and the user's terminal sets up timing of providing the contents and detail of the contents and informs with sound. However, Riu teaches using engine speed which is well known to be derived from the engine revolutions, vehicle speeds for determining environment-load emission (abstract; para 0027, 0029), storing calculated information with user information in a database (para 0020; 0036), retrieving and processing the information and provides the content of the information via email server (para 0044), and Lightner suggests using gathered data from the vehicle for diagnosis by combining and comparing the data (col.3, lines 6-22, lines 34-50; col.4, lines 52-59; col.8, lines 56-67). Further,

setting up personal information, timing of providing the contents, and utilizing sound for alerting the user would have been well known. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the method for determining environment-load emission of Liu and the method for performing vehicle diagnosis of Lightner to system of Kapolka in order to allow the user to track working condition of a specific vehicle and to monitor the amount emission to facilitate limiting pollution to the environment.

As per claim 2, providing a display at the server center so that the operator at the server can monitor general vehicle diagnosis condition would have well know.

As per claim 4, Riu teaches in fig.3 a terminal of a company which is required to reduce fuel consumption (para 0042, 0050) and a center of a traffic 3 (fig.3). Further, Riu the capability of providing suitable action based on the environment load emission (which is well known to correspond to the amount of fuel consumption) (para 0045) and allowing the company to sell surplus right of pollution (para 0051), moreover, reducing the fuel cost by reducing taxes, or by the reimbursement of the selling of the surplus right of pollution would have been both known and obvious design choice.

3. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kapolka et al (US 6,714,857) in view of Riu et al (JP 2002-197155) (enclosed IDS) and Lightner et al (US 6,636,790) and Satoshi et al (JP 2002-089349) (enclosed IDS).

As per claim 3, refer to claim 1 above. Further, turning power source when a vehicle start up, using wire line or short range wireless communication system such as Bluetooth technology between the sensors and the in-vehicle device would have been well known vehicle operation. Moreover, Satoshi teaches breaking down of fuel consumption with respect to each event (stop event, sudden braking, sudden accelerating, etc), finding out an event causing increases of fuel consumption, and advising a user to drive in a way to reduce fuel consumption (para 0026-0027, 0094, 0096-0097, 0101-0102; 0023). Moreover, determining environment load emissions from the amount of fuel consumption would have been both well known and obvious. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to break down the fuel consumption (and hence break down environment load emissions) of Kapolka in view of Riu and Lightner with respect to vehicle operation events as taught by Satoshi in order to help the driver to improve driving operation to save fuel as motivated by Satoshi in para 0023 and therefore to minimize pollution to the environment.

(10) Response to Argument

Issue 1: In page 8 from second through page 9, lines 1-2 and first paragraph, the appellant asserts two elements: (1) the cited portions of Kapolka teaches calculating fuel consumption with respect to a single event: idling, whereas the present application claim calculating fuel consumption with respect to each of events; (2) Kapolka does not teach calculating the fuel used over

the events of a total driving time. The following is the examiner's opinion on the two elements:

Response 1:

1. The examiner does not agree with the assertion (1) because:
   Kapolka teaches calculating fuel consumption for at least three events: event 1: when the vehicle is running (col.7,lines 66-67); event 2: when the vehicle is idling ; event 3: when the vehicle crosses a jurisdiction. In col.8, lines 33-42, Kapolka clearly teaches establishing several records of fuel according to the events (record of total fuel (used when vehicle is running), record of idle fuel (use when the vehicle is idle), record of refueling). Moreover, in col.7, lines 26-30, Kapolka teaches calculating total fuel used in a jurisdiction (when the vehicle crosses the border (the border event)), and calculating the idle fuel in the jurisdiction (the border event, and the idle event).
2. The examiner does not agree with the assertion (2) because:
   In fig.10, and noticeably, in col.6, lines 63, Kapolka teaches determining if a vehicle crosses a jurisdiction border (the crossing border event), then calculating the fuel consumption for running event (col.7, lines 39-49), and idling event (col.10, lines 40-53) for ***each*** jurisdiction the vehicle has traveled. The word "each" in col.6, line 63, suggests that Kapolka encompasses teaching calculating fuel

consumption for each event of events (crossing a border event, running event, idling event) over a total driving time of the vehicle. It is also noted that Kapolka does encompass teaching calculating the fuel consumption in each event of events over a total driving time because the claim does not indicate how much the total driving time the claim should encompasses, and because Kapolka does not limit how large a jurisdiction should be. Suppose, the jurisdiction is defined as the whole territory of a country, a vehicle just completed its trip within the territory, the device taught by Kapolka will definitely calculate the fuel consumption for running events and idling events over a total driving time of the vehicle.

Issue 2: In page 9, second paragraph (argument on claim 1) through page 10, lines 1-2 and the following first two paragraphs (argument on claim 3), the appellant asserts that Kapolka does not disclose or suggests calculating environmental load emissions with respect to each event. The following is the examiner answer:

Response 2:

Kapolka does not actually disclose calculating environmental load emissions. However, Kapolka teaches calculating fuel consumption for each event corresponding to the total driving time of the vehicle as

explained in issue 1 above. Kapolka further teaches gathering data such as engines, transmission, etc. for "other activities" such as "diagnostic analysis" (Kapolka col.4, lines 59-66), therefore, the system taught by Kapolka at least has information concerning the engine, the transmission, etc. necessary for further processing for other purposes such as vehicle diagnosis, reprogramming,etc. The secondary reference by Riu (JP 2002-197155) teaches determining environmental load emissions for each vehicle in a jurisdiction region (para 0003, 0006, 0011, 0017) using information such as engine speed, rotational frequency of the power plant (para 0027, 0029, 0030) to calculate the instantaneous value of discharge of an environmental load emission (para 0031), an ordinary person skilled in the art at the time the invention was made should be able to use the formula (2) taught by Rui in para 0030 to determine the environmental load emissions using the data gathered at the system as suggested by Kapolka at each event when information for tax purpose on environmental load emissions is applied. Rui teaches the motivations for determining environmental load emission in para 0063, and para 0002-0003, the motivation taught by Rui motivation is to ensure that the environmental load emission in a predetermined area is below environmental load emission limits (para 0063), and that help to reduce the environmental load as taught in para 0002-0003.

Issue 3: On page 10, from third paragraph through page 12, the appellant asserts that there are no motivation to combines references: The following is the examiner answer:

Response 3:

Concerning the combination of Kapolka (US 6,714,857) in view of Riu et al (JP 2002-197155), Kapolka teaches gathering data such as engines, transmission, etc. for "other activities" such as "diagnostic analysis" (Kapolka col.4, lines 59-66), therefore, the system taught by Kapolka at least has information concerning the engine, the transmission, etc. necessary for further processing for other purposes such as vehicle diagnosis, reprogramming,etc. The secondary reference by Riu (JP 2002-197155) teaches determining environmental load emissions for each vehicle in a jurisdiction region (para 0003, 0006, 0011, 0017) using information such as engine speed, rotational frequency of the power plant (para 0027, 0029, 0030) to calculate the instantaneous value of discharge of an environmental load emission (para 0031), an ordinary person skilled in the art at the time the invention was made should be able to use the formula (2) taught by Rui in para 0030 to determine the environmental load emissions using the data gathered at the system as suggested by Kapolka at each event when information for tax purpose on environmental load emissions is

applied. Rui teaches the motivations for determining environmental load emission in para 0063, and para 0002-0003, that motivation is to ensure the environmental load emission in a predetermined area to be below environmental load emission limits (para 0063), and to help reducing the environmental load as taught in para 0002-0003.

Concerning motivation to combine the third reference of Lightner et al (US 6,636,790) with the first and second references of Kapolka (US 6,714,8570) in view of Riu et al (JP 2002-197155), Kapolka teaches gathering information for vehicle diagnosis purpose (Kapolka col.4, lines 61-67), and Lightner suggests that for diagnosis purpose including determining emission status (col.9, lines 32-36, col.3, lines 10-16), the gathered data should be compared with a threshold to determine the vehicle performance (Lightner col.3, lines 42-47). It is within an ordinary person skilled in the art to determine the vehicle emission status by comparing the environmental load emission calculated from Riu with a threshold as taught by Lightner to determine if the vehicle emission is within an acceptable limit. The motivation for this is to characterize the vehicle performance as taught by Lightner in col.3, lines 45-47, and to warn an individual owner of the vehicle to reduce the environmental load emission when the emission is beyond acceptable level as taught by the second reference (JP 2002-197155) by Riu in para 0003.

Concerning the motivation to combine references in claim 3, the motivation to combine the first three references of Kapolka et al (US 6,714,857) over Riu et al (JP 2002-197155) and further in view of Lightner et al (US 6,636,790), has been discussed above (in this issue). Concerning the motivation to combine the fourth reference of Satoshi et al (JP 2002-089349), Satoshi teaches evaluating the operational status of cars such as fuel consumption (Satoshi, para 0001) when the vehicle is idling, or braking, etc. (Satoshi para 0103, 0104), this is in the same context with the teaching of Kapolka et al (Kapolka col.8, lines 35-38), an ordinary person skilled in the art at the time the invention was made would be able to determine fuel consumption at each events of Kapolka using the suggestion of Satoshi , moreover, since the fuel consumption directly related to the environmental load emission, determining the environmental load emission at each event in view of Kapolka and Rui's teaching is obvious. The motivation for determining the fuel emission and environmental load emission in each event would have been to provide accurate and concrete report on the vehicle performance to the operator at each event as motivated by Satoshi in the last 4 lines of para 0005.

It must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of

ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

March 8, 2007

THU V. NGUYEN
PRIMARY EXAMINER

Conferees:

Thomas Black

Cuong Nguyen

Encl: IDS submitted July 17,2006